

REMARKS

I. Introduction

In response to the Office Action dated September 29, 2005, Applicants have amended claims 1 and 2 to overcome the rejection under 35 U.S.C. § 112, and to more particularly point out an claim the subject matter of the present invention. Support for the claim amendments can be found, for example, in Figures 1 and 4(b). No new matter has been added. Applicants respectfully submit that all pending claims are patentable over the cited references.

II. The Rejection of Claims 1-3 and 8 under 35 U.S.C. § 112

Claims 1-3 and 8 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regards as the invention. Specifically, the Examiner alleges that the recitation of “a positive layer” in claim 1 lacks an adequate definition. Applicants have amended claim 1 to more particularly describe the positive layer. Applicants respectfully submit that, as amended, claim 1 clearly defines the recited positive layer, and therefore request that this rejection be withdrawn.

III. The Rejection of Claims 1-3 and 8 under 35 U.S.C. § 102

Claims 1-3 and 8 stand rejected under 35 U.S.C § 102(b) as allegedly being anticipated by Applicants’ admitted prior art. Applicants traverse this rejection for at least the following reasons.

Amended claim 1 recites, among other things, that a portion of the first oxide layer that is located in proximity to the defects has a thickness greater than a portion of the first oxide layer

that is located on a region having no defect. At least this feature is not disclosed by Applicants' admitted prior art.

Figure 15 depicts a conventional semiconductor device. As shown, a SiO₂ film is formed on a portion of a first GaN layer. However, placement of this SiO₂ film is not such that the portion located in proximity to defects has a greater thickness than portions located on a region having no defects.

By contrast, the semiconductor device recited in claim 1 is arranged such that a portion of the first oxide layer that is located in proximity to the defects has a thickness greater than a portion of the first oxide layer that is located on a region having no defects. For example, Figure 1 depicts an exemplary semiconductor device according to one embodiment of the invention. First oxide layer 104 has a film thickness that is larger at a position closer to the upper portion of each crystal defect (depicted as vertical lines in GaN layer 103) and which decreases gradually with distance from the crystal defect (see, page 13, lines 5-10).

The conventional semiconductor device depicted in Figure 15 does not disclose that a first oxide layer that is located in proximity to defects has a thickness greater than a portion of the first oxide layer that is located on a region having no defects. As such, claim 1 is not anticipated by Applicants' admitted prior art.

IV. All Dependent Claims Are Allowable Because the Independent Claims From Which They Depend Are Allowable

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claims are contained in the dependent claims, *Hartness International Inc. v. Sinplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 1 is patentable for the

reasons set forth above, it is respectfully submitted that all claims dependent thereon are also in condition for allowance.

V. Conclusion

Accordingly, it is urged that the application is in condition for allowance, an indication of which is respectfully solicited.

If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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